STATE OF MAINE
DEPARTMENT OF ENVIRONMENTAL PROTECTION

PAUL R. LEPAGE
GOVERNOR

PATRICIA W. AHO
COMMISSIONER

**Lohmann Animal Health International, Inc.**
**Kennebec County**
**Winslow, Maine**
**A-859-71-G-R (SM)**

**Departmental**
**Findings of Fact and Order**
**Air Emission License**
**Renewal**

## FINDINGS OF FACT

After review of the air emission license application, staff investigation reports, and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., §344 and §590, the Department finds the following facts:

## I. REGISTRATION

### A. Introduction

Lohmann Animal Health International, Inc. (Lohmann) has applied to renew their Air Emission License permitting the operation of emission sources associated with their poultry vaccine development and manufacturing facility. The equipment addressed in this license is located at 375 China Road, Winslow, Maine.

### B. Emission Equipment

The following equipment is addressed in this air emission license:

**Boilers**

| Equipment | Max. Capacity (MMBtu/hr) | Max. Firing Rate (gal/hr) | Fuel Type | Installation Date | Stack # |
|---|---|---|---|---|---|
| Boiler #1 | 2.6 | 27.3 | Propane | 1997 | 2 |
| Boiler #2 | 2.6 | 27.3 | | | 3 |

**Generators**

| Equipment | Max. Input Capacity (MMBtu/hr) | Rated Output (KW) | Firing Rate (gal/hr) | Fuel Type, % sulfur | Install. Date | Stack # |
|---|---|---|---|---|---|---|
| Generator #1 | 6.0 | 800 | 44.0 | Diesel, 0.0015% sulfur | 2000 | 4 |
| Generator #2 | 1.5 | 200 | 10.7 | | 2008 | 5 |
| Generator #3 | 2.4 | 250 | 17.8 | | 2012 | 6 |

AUGUSTA
17 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0017
(207) 287-7688 FAX: (207) 287-7826
RAY BLDG., HOSPITAL ST.

BANGOR
106 HOGAN ROAD, SUITE 6
BANGOR, MAINE 04401
(207) 941-4570 FAX: (207) 941-4584

PORTLAND
312 CANCO ROAD
PORTLAND, MAINE 04103
(207) 822-6300 FAX: (207) 822-6303

PRESQUE ISLE
1235 CENTRAL DRIVE, SKYWAY PARK
PRESQUE ISLE, MAINE 04679-2094
(207) 764-0477 FAX: (207) 760-3143

web site: www.maine.gov/dep

**Incinerator #3**

Incinerator #3 is a Shenandoah Model P25-2GM1 with the following specifications:

| | |
|---|---|
| **Class Incinerator** | IV-A |
| **No. of Chambers** | 2 |
| **Type of Waste** | Type 4 |
| **Max. Design (Combustion/Feed) Rate** | 1200 pounds/load<br>45 lb/hour burn rate |
| **Auxiliary Fuel Input:**<br>**Primary Chamber (MMBtu/hr)**<br>**Secondary Chamber (MMBtu/hr)** | LPG/propane<br>0.32<br>1.20 |
| **Emission Control** | Afterburner |
| **Stack** | 1 |

Note: Incinerators #1 and #2 have been retired and removed from the air emission license in previous licensing actions.

C. Application Classification

The application for Lohmann does not include the licensing of increased emissions or the installation of new or modified equipment. Therefore, the license is considered to be a renewal of currently licensed emission units only and has been processed through *Major and Minor Source Air Emission License Regulations*, 06-096 CMR 115 (as amended). With the fuel limits on the boilers and Incinerator #3 and the operating hours restrictions on the emergency generators, the facility is licensed below the major source thresholds and is considered a synthetic minor.

## II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license, the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in *Definitions Regulation*, 06-096 CMR 100 (as amended). Separate control requirement categories exist for new and existing equipment and for those sources located in designated non-attainment areas.

BPT for existing emissions equipment means that method which controls or reduces emissions to the lowest possible level considering:

- the existing state of technology;

- the effectiveness of available alternatives for reducing emissions from the source being considered; and
- the economic feasibility for the type of establishment involved.

B. Boilers #1 and #2

Lohmann operates Boilers #1 and #2 primarily for process steam. The boilers are rated at 2.6 MMBtu/hour each and fire propane. Boilers #1 and #2 were installed in 1997 and exhaust through Stack 2 and Stack 3, respectively.

1. New Source Performance Standards (NSPS), 40 CFR Part 60

Due to the sizes of the two boilers, these units are not subject to the New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart Dc, *Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units*, for units greater than 10 MMBtu/hour manufactured after June 9, 1989.

2. National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63

Gas fired boilers are not subject to the requirements 40 CFR Part 63, Subpart JJJJJJ, *National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources*. These two boilers are gas fired boilers, according to the definition under 40 CFR Part 63, Subpart JJJJJJ § 63.11237. As such, they are exempt from Subpart JJJJJJ requirements. [40 CFR § 63.11195 (e)]

3. BPT Findings

The BPT emission limits for the boilers were based on the following emission factors:

| | |
|---|---|
| PM – | 0.05 lb/MMBtu (A-859-71-F-A, dated April 19, 2012, BACT) |
| $PM_{10}$ – | derived from PM limits |
| $SO_2$ – | 0.10S lb/1000 gal, AP-42 Table 1.5-1, dated 7/08, for commercial boilers and a propane sulfur content of 0.012% |
| $NO_x$ – | 13 lb/1000 gal, AP-42 Table 1.5-1, dated 7/08 |
| CO – | 7.5 lb/1000 gal, AP-42, Table 1.5-1, dated 7/08 |
| VOC – | 1.0 lb/1000 gal, AP-42, Table 1.5-1, dated 7/08 |
| Opacity – | 06-096 CMR 101 |

The BPT emission limits for Boilers #1 and #2 are the following:

| Unit | PM (lb/hr) | $PM_{10}$ (lb/hr) | $SO_2$ (lb/hr) | $NO_x$ (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---|---|---|---|---|---|
| Boiler #1 (2.6 MMBtu/hr) propane | 0.13 | 0.13 | 0.01 | 0.35 | 0.20 | 0.03 |
| Boiler #2 (2.6 MMBtu/hr) propane | 0.13 | 0.13 | 0.01 | 0.35 | 0.20 | 0.03 |

Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period.

Boilers #1 and #2 combined fuel use shall be limited to 150,000 gallons/year of propane on a calendar year basis. Periodic monitoring for the boilers shall include recordkeeping to document fuel use both on a monthly and a calendar year basis.

C. Emergency Generators

Lohmann operates three emergency generators. The emergency generators were manufactured in different years and are thus subject to different regulatory requirements. Therefore, the generators are individually addressed according to those requirements.

1. Emergency Generator #1 [Pre-2006]

Emergency Generator #1 is a Caterpillar 3412 model with a rated input capacity of 6.0 MMBtu/hour (800 kW) and was manufactured in 2000.

*New Source Performance Standards (NSPS), 40 CFR Part 60*
Emergency Generator #1 is an existing emergency unit constructed before the applicability date of 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE).* Thus, there are no NSPS requirements applicable to this unit. [40 CFR Part 60, Subpart IIII, §60.4200]

*National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63*
The federal regulation 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines* is not applicable to Emergency Generator #1. The unit is considered an existing, emergency, stationary, reciprocating, internal combustion engine at an area HAP source; however, it is exempt from the requirements of Subpart ZZZZ since it is categorized as a residential, commercial, or institutional emergency engine.

Emergency generators are only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events beyond the control of the source. Emergency generators are not to be used for prime power when reliable offsite power is available; nor used to supply power to an electric grid as part of a financial arrangement with an independent system operator (ISO) or another entity.

2. Emergency Generators #2 and #3 [Post-2006]

Generator #2 is an Onsite Energy model 200JPC6DT3 rated at 1.5 MMBtu/hour and was installed in 2008. Generator #3 is a Kohler model 250REOZJE rated at 2.4 MMBtu/hour and installed in 2012.

*New Source Performance Standards (NSPS), 40 CFR Part 60*
Generators #2 and #3 are considered new, emergency, stationary, reciprocating internal combustion engines (RICE) at an area HAP source, and are therefore subject to the requirements of 40 CFR Part 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE).* Subpart IIII is applicable to Emergency Generators #2 and #3 since the units were ordered after July 11, 2005, and manufactured after April 1, 2006.

There are different requirements for emergency versus non-emergency RICE. The definition of emergency stationary internal combustion engine is defined in 40 CFR Part 60, Subpart IIII, § 60.4219 and includes the following caveats. All engines must comply with these requirements in order to be considered emergency stationary ICE under Subpart IIII.

a. Definition of Emergency Stationary RICE

*Emergency stationary internal combustion engine* means any stationary reciprocating internal combustion engine that meets all of the following criteria:

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation.

Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc.

There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR Part 60, Subpart IIII, § 60.4211(f)]

(2) Paragraph (1) above notwithstanding, the emergency stationary ICE may be operated for any combination of the purposes specified below for a maximum of 100 hours per calendar year:

- **Maintenance checks and readiness testing,** if the tests are recommended by federal, state, or local government and the tests are recommended by the manufacturer, vendor, regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

  The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- **Emergency demand response** for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP–002–3, Capacity and Energy Emergencies, or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP–002–3.

- **Periods of voltage deviation or low frequency**, when the frequency is ≥ 5% below standard voltage or frequency.

(3) Paragraphs (1) and (2) above notwithstanding, emergency stationary RICE may be operated for up to 50 hours per calendar year in non-emergency situations. These 50 hours are counted as part of the 100 hours per calendar year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency, as provided in paragraph (2) above.

The 50 hours per calendar year for non-emergency situations cannot be used for peak shaving, for non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, unless all of the following conditions are met:

Note: These situations are only as allowed in 40 CFR Part 60, Subpart IIII, §60.4211(f)(2)(ii) or (iii) and §60.4211(f)(3)(i).

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation, or similar protocols that follow specific NERC, regional, state, public utility commission, or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission, or local standards or guidelines that are being followed for dispatching the engine. The local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

b. 40 CFR Part 60, Subpart IIII Requirements

(1) The generators shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in 40 CFR §60.4202. [40 CFR §60.4205(b)]

(2) The diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur). [40 CFR §60.4207(b)]

(3) A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §60.4209(a)]

(4) The generators shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Lohmann that are approved by the engine manufacturer. Lohmann may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

(5) The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency. Up to 50 hours/year of the 100

hours/year may be used in non-emergency situations. (This does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, unless the conditions specified in part (3) of the definition for *emergency stationary internal combustion engine,* above, are met. [40 CFR §60.4211(f)]

(6) No initial notification is required for emergency engines. [40 CFR §60.4214(b)]

(7) There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)]

*National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63*
Generators #2 and #3 are subject to the requirements of 40 CFR Part 63, Subpart ZZZZ, *National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines.* However, by complying with the requirements in 40 CFR Part 60, Subpart IIII, the requirements in Subpart ZZZZ are also satisfied.

3. BPT Findings for Emergency Generators #1, #2, and #3

The BPT emission limits for Emergency Generators #1, #2, and #3 are based on emission factors from U.S. EPA's AP-42, *Compilation of Air Pollutant Emission Factors*, and other limits as contained in applicable regulations. AP-42 identifies Large Stationary Diesel Engines as those greater than 600 hp and provides different emission factors for engines of such size than for smaller units. Because of this, Generator #1 emission limits were calculated using AP-42 factors for Large Stationary Diesel Engines, and Generators #2 and #3 emission limits were calculated using factors appropriate for their size. Specifically, the BPT emission limits for Emergency Generators #1, #2, and #3 are based on the following:

Emergency Generator #1 (800 kW ~ 1073 hp)

| Pollutant | Factor | Source |
|---|---|---|
| PM | 0.12 lb/MMBtu | 06-096 CMR 103 (2)(B)(1)(a) |
| $PM_{10}$ | | derived from PM limit |
| $SO_2$ | 0.0015 lb/MMBtu | based on firing 0.0015% sulfur fuel |
| $NO_x$ | 3.2 lb/MMBtu | AP-42 Table 3.4-1 (dated 10/96) |
| CO | 0.85 lb/MMBtu | |
| VOC | 0.09 lb/MMBtu | |
| Visible Emissions | N.A. | 06-096 CMR 101 |

Emergency Generators #2 (200 kW ~ 268 hp) and #3 (250 kW ~ 335 hp)

| Pollutant | Factor | Source |
|---|---|---|
| PM | 0.12 lb/MMBtu | A-859-71-F-A (April 19, 2012), BACT |
| $PM_{10}$ | | derived from PM limit |
| $SO_2$ | 0.0015 lb/MMBtu | based on firing 0.0015% sulfur fuel |
| $NO_x$ | 4.41 lb/MMBtu | AP-42 Table 3.3-1 (dated 10/96) |
| CO | 0.95 lb/MMBtu | |
| VOC | 0.36 lb/MMBtu | |
| Visible Emissions | N.A. | 06-096 CMR 101 |

Emissions from the three diesel generators shall be limited to the following:

| Unit | PM (lb/MMBtu) | PM (lb/hr) | $PM_{10}$ (lb/hr) | $SO_2$ (lb/hr) | $NO_x$ (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---|---|---|---|---|---|---|
| Generator #1 (6.0 MMBtu/hour) | 0.12 | 0.72 | 0.72 | 0.01 | 19.20 | 5.10 | 0.54 |
| Generator #2 (1.5 MMBtu/hour) | N.A. | 0.18 | 0.18 | 0.01 | 6.62 | 1.43 | 0.54 |
| Generator #3 (2.4 MMBtu/hour) | | 0.29 | 0.29 | 0.01 | 10.58 | 2.28 | 0.86 |

Visible emissions from each of the emergency generators shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period.

Each of the emergency generators shall be limited to 500 hours of operation a year, based on a calendar year. Lohmann shall keep records of the hours of operation for each unit.

D. Incinerator #3

Lohmann is licensed to operate an incinerator to dispose of poultry remains resulting from the processes conducted at this facility. This source was previously subject to Best Available Control Technology (BACT) requirements. The former BACT determination is now considered Best Practical Treatment for this source. BPT for the Class IV-A veterinary incinerator includes the following:

1. Operating temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600°F with a stack gas retention time, at or above 1600°F, of at least 1.0 second.

2. To ensure an efficient burn, to prevent odors, and to minimize visible emissions, the secondary chamber shall be preheated, as specified by the manufacturer, until the pyrometer temperature measures a minimum of 1600°F prior to commencing the burn cycle.

3. Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of 1600°F in the secondary chamber.

4. The temperature in the secondary chamber or refractory lined stack shall be maintained at or above 1600°F for the duration of the burn cycle.

5. A pyrometer and ¼-inch test port shall be installed and maintained at the location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 second at the minimum of 1600°F.

6. Lohmann shall maintain a log detailing and quantifying the hours of operation on a daily basis for Incinerator #3. The log shall record the weight of each charge to the incinerator, preheat temperature, preheating time, charging time, and afterburner temperature directly after charging and every 60 minutes after startup until, and including, final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged may be logged on the chart. The operation log shall be kept on-site at the incinerator location.

7. Lohmann shall maintain a log detailing the maintenance of emission control equipment. Records of the date of each inspection and any corrective action required will be included in the maintenance log. The maintenance log shall be kept on-site at the incinerator location.

8. Lohmann shall not exceed a particulate matter emission limit of 0.20 gr/dscf corrected to 12% $CO_2$ from the auxiliary fuel fired in Incinerator #3 [06-096 CMR 104].

9. Hourly emission limits are based on the burning of propane as an auxiliary fuel and the use of AP-42 factors from AP-42 Tables 2.3-1 and 2.3-2 for biomedical waste incineration (dated 7/93) and AP-42 Table 1.5-1 for the combustion of propane (dated 07/08):

| Pollutant | Fuel Combustion Factor, lb/1000 gal | Lb/Hour from Fuel | Waste Combustion Factor, lb/ton | Lb/Hour from Wastes | Emission Limit: Lb/Hour |
|---|---|---|---|---|---|
| **PM** | 0.2 | 0.003 | 4.67 | 0.11 | **0.11** |
| **$PM_{10}$** | 0.2 | 0.003 | 4.67 | 0.11 | **0.11** |
| **$SO_2$** | 0.01 | 0.0002 | 2.17 | 0.05 | **0.05** |
| **$NO_x$** | 13 | 0.22 | 3.56 | 0.08 | **0.30** |
| **CO** | 7.5 | 0.12 | 2.95 | 0.07 | **0.19** |
| **VOC** | 1.0 | 0.02 | 0.299 | 0.01 | **0.03** |

10. Visible emissions from the incinerator shall not exceed 10% opacity based on a six-minute block average basis.

11. The ash shall be disposed of in accordance with the requirements of the Bureau of Remediation and Waste Management.

12. The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of the Air Emission License.

13. Lohmann shall not exceed a fuel use of 20,000 gallons of LPG/propane fuel per calendar year in Incinerator #3. Compliance shall be demonstrated by receipts from the supplier documenting the quantity of fuel delivered for use in Incinerator #3.

E. Annual Emissions

1. Total Annual Emissions

Annual emission limits were calculated based on the following:

a. Firing a combined total of 150,000 gallons of LPG/propane per year in the boilers;
b. 500 hours of operation of each emergency generator per year;
c. Firing 20,000 gallons of LPG/propane fuel per year in Incinerator #3.

Lohmann shall be restricted to the following annual emissions on a calendar year basis:

**Total Licensed Annual Emissions for the Facility**
**Tons/year**
(used to calculate the annual license fee)

| | PM | $PM_{10}$ | $SO_2$ | $NO_x$ | CO | VOC |
|---|---|---|---|---|---|---|
| Boilers #1 and #2 | 0.36 | 0.36 | 0.01 | 0.96 | 0.55 | 0.08 |
| Generator #1 | 0.18 | 0.18 | 0.01 | 4.8 | 1.28 | 0.14 |
| Generator #2 | 0.05 | 0.05 | 0.01 | 1.66 | 0.36 | 0.14 |
| Generator #3 | 0.07 | 0.07 | 0.01 | 2.65 | 0.57 | 0.22 |
| Incinerator #3 | 0.07 | 0.07 | 0.03 | 0.18 | 0.11 | 0.02 |
| **Total TPY** | **0.7** | **0.7** | **0.03*** | **10.3** | **2.9** | **0.6** |

* The $SO_2$ emissions from both boilers and all three generators are significantly less than 0.01 ton/year each and were rounded up to that value for each unit. The total of the actual values, when added to the $SO_2$ contribution from Incincerator #3, results in a total no greater than 0.03 tons/year.

2. Greenhouse Gases

Greenhouse gases are considered regulated pollutants as of January 2, 2011, through 'Tailoring' revisions made to EPA's *Approval and Promulgation of Implementation Plans,* 40 CFR Part 52, Subpart A, §52.21 *Prevention of Significant Deterioration of Air Quality* rule. Greenhouse gases, as defined in 06-096 CMR 100 (as amended), are the aggregate group of the following gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. For licensing purposes, greenhouse gases (GHG) are calculated and reported as carbon dioxide equivalents ($CO_2e$).

Based on the facility's fuel use limits, the worst case emission factors from AP-42, IPCC (Intergovernmental Panel on Climate Change), and *Mandatory Greenhouse Gas Reporting*, 40 CFR Part 98, and the global warming potentials contained in 40 CFR Part 98, Lohmann is below the major source threshold of 100,000 tons of $CO_2e$ per year. Therefore, no additional licensing requirements are needed to address GHG emissions at this time.

## III. AMBIENT AIR QUALITY ANALYSIS

According to 06-096 CMR 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling is not required for a renewal if the total emissions of any pollutant released do not exceed the following and there are no extenuating circumstances:

| Pollutant | Tons/Year |
|---|---|
| PM | 25 |
| $PM_{10}$ | 25 |
| $SO_2$ | 50 |
| $NO_x$ | 50 |
| CO | 250 |

Based on the total facility licensed emissions, Lohmann is below the emissions level required for modeling for all pollutants.

## ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards, and
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-859-71-G-R (SM) subject to the following conditions.

Severability. The invalidity or unenforceability of any provision or part thereof of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

**STANDARD CONDITIONS**

(1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 M.R.S.A. §347-C).

(2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification as defined in 06-096 CMR 100, unless specifically provided for in Chapter 115. [06-096 CMR 115]

(3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [06-096 CMR 115]

(4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [06-096 CMR 115]

(5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353-A. [06-096 CMR 115]

(6) The license does not convey any property rights of any sort, or any exclusive privilege. [06-096 CMR 115]

(7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [06-096 CMR 115]

(8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [06-096 CMR 115]

(9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [06-096 CMR 115]

(10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [06-096 CMR 115]

(11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:

A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
   1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
   2. pursuant to any other requirement of this license to perform stack testing.

B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and

C. submit a written report to the Department within thirty (30) days from date of test completion.

[06-096 CMR 115]

(12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:

A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance

with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and

B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and

C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[06-096 CMR 115]

(13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [06-096 CMR 115]

(14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emissions and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [06-096 CMR 115]

(15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [06-096 CMR 115]

## SPECIFIC CONDITIONS

(16) **Boilers #1 and #2**

A. Boilers #1 and #2 shall be limited to firing a combined total of 150,000 gallons of LPG/propane on a calendar year basis. Lohmann shall keep records

to document fuel use both on a monthly and a calendar year basis. [A-859-71-F-A (April 19, 2012), BACT]

B. Emissions shall not exceed the following [A-859-71-F-A (April 19, 2012), BACT]:

| Unit | PM (lb/hr) | $PM_{10}$ (lb/hr) | $SO_2$ (lb/hr) | $NO_x$ (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---|---|---|---|---|---|
| Boiler #1 (2.6 MMBtu/hr) propane | 0.13 | 0.13 | 0.01 | 0.35 | 0.20 | 0.03 |
| Boiler #2 (2.6 MMBtu/hr) propane | 0.13 | 0.13 | 0.01 | 0.35 | 0.20 | 0.03 |

C. Visible emissions from each boiler shall not exceed 10% opacity on a six-minute block average basis, except for no more than one six-minute block average in a three-hour period. [06-096 CMR 101]

(17) **Emergency Generators #1, #2, and #3**

A. Each of the emergency generators shall be limited to 500 hours of operation a year, on a calendar year basis. Lohmann shall keep records of the hours of operation for each unit. [06-096 CMR 115, BPT]

B. The fuel oil sulfur content for Generators #1, #2, and #3 shall be limited to 0.0015% sulfur by weight. Compliance shall be demonstrated by fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [06-096 CMR 115, BPT]

C. Emissions from the three diesel generators shall not exceed the following [06-096 CMR 115, BPT]:

| Unit | PM (lb/MMBtu) | PM (lb/hr) | $PM_{10}$ (lb/hr) | $SO_2$ (lb/hr) | $NO_x$ (lb/hr) | CO (lb/hr) | VOC (lb/hr) |
|---|---|---|---|---|---|---|---|
| Generator #1 (6.0 MMBtu/hour) | 0.12 | 0.72 | 0.72 | 0.01 | 19.20 | 5.10 | 0.54 |
| Generator #2 (1.5 MMBtu/hour) | N.A. | 0.18 | 0.18 | 0.01 | 6.62 | 1.43 | 0.54 |
| Generator #3 (2.4 MMBtu/hour) | | 0.29 | 0.29 | 0.01 | 10.58 | 2.28 | 0.86 |

D. Visible emissions from each of the emergency generators shall not exceed 20% opacity on a six-minute block average, except for no more than two six-minute block averages in a three-hour period. [06-096 CMR 101]

E. Emergency Generator #1 is only to be operated for maintenance purposes and for situations arising from sudden and reasonably unforeseeable events

beyond the control of the source. Emergency Generator #1 is not to be used for prime power when reliable offsite power is available; nor used to supply power to an electric grid as part of a financial arrangement with an independent system operator (ISO) or another entity. [06-096 CMR 115, BPT]

F. Emergency Generators #2 and #3 shall meet the applicable requirements of 40 CFR Part 60, Subpart IIII, including the following:

1. The generators shall be certified by the manufacturer as meeting the emission standards for new non-road compression ignition engines found in §60.4202. [40 CFR §60.4205(b)]

2. The diesel fuel fired in the generators shall not exceed 15 ppm sulfur (0.0015% sulfur by weight). Compliance with the fuel sulfur content limit shall be based on fuel records from the supplier documenting the type of fuel delivered and the sulfur content of the fuel. [40 CFR §60.4207(b) and 06-096 CMR 115]

3. A non-resettable hour meter shall be installed and operated on each generator. [40 CFR §60.4209(a)]

4. The generators shall each be limited to 100 hours/year for maintenance checks and readiness testing, emergency demand response, and periods of voltage deviation or low frequency. Up to 50 hours/year of the 100 hours/year may be used in non-emergency situations. (This does not include peak shaving, non-emergency demand response, or to generate income for a facility by providing power to an electric grid or otherwise supply power as part of a financial arrangement with another entity, unless the conditions specified in part (3) of the definition for *emergency stationary internal combustion engine* specified in the Findings of Fact of this license are met.

   These limits are on a calendar year basis. Compliance shall be demonstrated by a written log of all generator operating hours. [40 CFR §60.4211(f) and 06-096 CMR 115]

5. The generators shall be operated and maintained according to the manufacturer's emission-related written instructions or procedures developed by Lohmann that are approved by the engine manufacturer. Lohmann may only change those emission-related settings that are permitted by the manufacturer. [40 CFR §60.4211(a)]

(18) **Incinerator #3**

A. Incinerator #3 shall be used for the disposal of type 4 (veterinary) wastes and shall not be used for the disposal of plastics, cytotoxic (antineoplastic) drugs or any radioactive wastes and shall not be used to dispose of any medical waste classified as type 7 wastes, as defined in 06-096 CMR 100. However, the incidental use of plastics used in wrapping animal carcasses for handling and storage purposes is allowed. [06-096 CMR 115, BPT]

B. The incinerator shall not exceed the maximum design charging rate of 1,200 pounds. Auxiliary fuel input to the primary and secondary chamber shall be LPG/propane. [06-096 CMR 115, BPT]

C. Lohmann shall maintain a log detailing and quantifying the hours of operation on a daily basis for Incinerator #3. The log shall record the weight of each charge to the incinerator; preheat temperature, preheating time, charging time, and afterburner temperature directly after charging and every 60 minutes after startup until and including final shutdown time. For facilities operating a chart recorder, the start time, date, and weight charged may be logged on the chart. The operation log shall be kept on-site at the incinerator location. [06-096 CMR 115, BPT]

D. Lohmann shall maintain a log detailing the maintenance of emission control equipment. Records of the date of each inspection and any corrective action required will be included in the maintenance log. The maintenance log shall be kept on-site at the incinerator location. [06-096 CMR 115, BPT]

E. The secondary chamber shall be preheated as specified by the manufacturer to a minimum of $1600^0$F prior to combusting any waste and shall be maintained at a minimum of $1600^0$F for the duration of the burn. [06-096 CMR 115, BPT]

F. Once the burn cycle has commenced by introduction of primary chamber combustion, the incinerator shall be operated in an efficient manner and as specified by the manufacturer for the period of time between preheat and reaching the set operational temperature to be a minimum of $1600^0$F in the secondary chamber. [06-096 CMR 115, BPT]

G. A pyrometer and ¼-inch test port shall be operated and maintained at that location of the incinerator or refractory lined stack which provides sufficient volume to insure a flue gas retention time of not less than 1.0 second at the minimum of $1600^0$F. [06-096 CMR 115, BPT]

H. Emissions from Incinerator #3 shall not exceed the limits specified in Table 1 [06-096 CMR 104] and Table 2 [06-096 CMR 115, BPT] below:

**Table 1**

| Pollutant | Emission Limit, gr/dscf |
|---|---|
| PM | 0.20 @ 12% $CO_2$ |

**Table 2**

| Pollutant | Emission Limit, lb/hour |
|---|---|
| PM | 0.11 |
| $PM_{10}$ | 0.11 |
| $SO_2$ | 0.05 |
| $NO_x$ | 0.30 |
| CO | 0.19 |
| VOC | 0.03 |

I. Visible emissions from Incinerator #3 shall not exceed an opacity limit of 10% on a six-minute block average basis. [06-096 CMR 115, BPT]

J. The ash shall be disposed of in accordance with the requirements of the MEDEP Bureau of Remediation and Waste Management. [06-096 CMR 115, BPT]

K. The incinerator operator(s) shall receive adequate training to operate the incinerator in accordance with the manufacturer's specifications and shall be familiar with the terms of this Air Emission License as it pertains to the operation of the incinerator. [06-096 CMR 115, BPT]

L. Although not required at this time, the installation and operation of continuous chart recording devices may become necessary to document compliance with the temperature requirements of this license. Should the Department determine that continuous recording devices are necessary, the licensee shall, within 120 days, demonstrate that continuous recorders have been installed and are operational. [06-096 CMR 115, BPT]

M. Lohmann shall not exceed a fuel use of 20,000 gallons of LPG/propane fuel per calendar year in Incinerator #3. Compliance shall be demonstrated by receipts from the supplier documenting the quantity of fuel delivered for use in Incinerator #3. [A-859-71-E-M (September 22, 2010); 06-096 CMR 115, BPT]

(19) Lohmann shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (38 M.R.S.A. §605).

DONE AND DATED IN AUGUSTA, MAINE THIS 25 DAY OF February , 2013.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: Marc Allen Robert Cone for
PATRICIA W. AHO, COMMISSIONER

**The term of this license shall be ten (10) years from the signature date above.**

[Note: If a complete renewal application, as determined by the Department, is submitted prior to expiration, then pursuant to Title 5 MRSA §10002, all terms and conditions of the license shall remain in effect until the Department takes final action on the renewal of the license.]

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: November 15, 2012
Date of application acceptance: November 16, 2012

Date filed with the Board of Environmental Protection:

This Order prepared by Jane Gilbert, Bureau of Air Quality.

Filed
FEB 26 2013
State of Maine
Board of Environmental Protection